

# Agenda of the Laws and Regulations Committee

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Chairman  
California Weights and Measures

Reference  
Key Number

## 200 Introduction

The Laws and Regulations Committee (Committee) will address the following items at its Interim Meeting. Table A identifies agenda items by Reference Key Number, title, and page number. The first three digits of the Reference Key Numbers of the items are assigned from the subject series listed below. The fact that an item may appear on the agenda does not mean it will be presented to the NCWM for a vote. The Committee may withdraw some items, present some items for information and further study, issue interpretations, or make specific recommendations for changes to the publications listed below. The recommendations presented in this agenda are statements of proposal and not necessarily recommendations of the Committee. The appendices to the report are listed in Table B.

This agenda contains recommendations to amend National Institute of Standards and Technology (NIST) Handbook 130, "Uniform Laws and Regulations," 2003 edition, and NIST Handbook 133, "Checking the Net Contents of Packaged Goods," Fourth Edition. Revisions proposed for the handbooks are shown in **bold face print** by ~~crossing out~~ information to be deleted and underlining information to be added. Additions proposed for the handbooks are designated as such and are shown in **bold face print**. Proposals presented for information only are designated as such and are shown in *italic type*. "SI" means the International System of Units. "FPLA" means the Fair Packaging and Labeling Act. The section mark, "§," is used in most references in the text and is followed by the section number and title, (for example, § 1.2. Weight.) When used in this report, the term "weight" means "mass."

### Subject Series

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Weights and Measures Law (WML) .....	221 Series
Weighmaster Law (WL).....	222 Series
Engine Fuels, Petroleum Products, and Automotive Lubricants Inspection Law (EFL).....	223 Series
Uniform Regulations .....	230 Series
Packaging and Labeling Regulation (PLR).....	231 Series
Method of Sale Regulation (MSR).....	232 Series
Unit Pricing Regulation (UPR) .....	233 Series
Voluntary Registration Regulation (VRR).....	234 Series
Open Dating Regulation (ODR).....	235 Series
Uniform National Type Evaluation Regulation (UNTER).....	236 Series
Engine Fuels, Petroleum Products, and Automotive Lubricants Regulation (EFR).....	237 Series
Examination Procedure for Price Verification.....	240 Series
Interpretations and Guidelines.....	250 Series
<b>NIST Handbook 133</b> .....	260 Series
<b>Other Items</b> .....	270 Series

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## Daily Schedule

### Sunday, January 25

**1:00 p.m. - 5:00 p.m.**     **Committee Working Session:** This session is open to all NCWM members but participation in discussion is generally limited to members of the Committee.

### Monday, January 26

**8:30 a.m. - 5:00 p.m.**     **Public Hearing:** Comments will be accepted on the following topics:

- 231     Packaging and Labeling Regulation
- 232     Method of Sale Regulation
- 236     Uniform National Type Evaluation Regulation
- 237     Engine Fuels, Petroleum Products, and Automotive Lubricants Regulation
- 240     Examination Procedure for Price Verification
- 260     NIST Handbook 133
- 270     Other Items

### Tuesday, January 27

**8:30 a.m. - 12:00 p.m.**     **Public Hearing (continued):** Comments will continue to be accepted on the above topics.

**1:00 p.m. - 5:00 p.m.**     **Committee Working Session:** This session is open to all NCWM members but participation in discussion is generally limited to members of the Committee.

### Wednesday, January 28

**8:30 a.m. - 11:00 a.m.**     **Committee Working Session:** This session is open to all NCWM members but participation in discussion is generally limited to members of the Committee.

**11:00 a.m. - 12:00 p.m.**     **Joint Session with all Standing Committees**

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**Details of All Items**  
**(In Order by Reference Key Number)**

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**231 PACKAGING AND LABELING REGULATION****231-1 Amend § 6.5.1. Symbols**

**SOURCE:** NIST Weights and Measures Division

**CURRENT PROPOSAL:** Amend the list of allowed symbols for the quantity statement on a package or commodity by adding the following:

**6.5.1. Symbols.** - Any of the following symbols for SI units, and none other, may be employed in the quantity statement on a package or commodity:

centimeter	cm	cubic meter	m <sup>3</sup>
cubic centimeter	cm <sup>3</sup>	kilogram	kg
meter	m	gram	g
milligram	mg	millimeter	mm
liter	L or l	square meter	m <sup>2</sup>
milliliter	mL or ml	cubic decimeter	dm <sup>3</sup>
square centimeter	cm <sup>2</sup>	square decimeter	dm <sup>2</sup>
micrometer	μm	<u>microgram</u>	<u>μg or mcg</u>

**BACKGROUND AND JUSTIFICATION:** The Food and Drug Administration (FDA) has recently permitted the use of the symbol “mc,” in addition to the traditional symbol “μ,” for the word “micro” on packages labeled by weight. This change came about because of difficulties the pharmaceutical industry was experiencing with fitting the symbol “μ” on their labels. The symbol “μ” requires additional height that the extremely small labels found on prescription drugs simply cannot accommodate. The symbol “mc” is intended to give manufacturers a horizontal option for their quantity declaration. Although there are very few commodities regulated by the weights and measures community that would be affected by this change, it is being proposed so that the state and local weights and measures regulations remain consistent with federal packaging and labeling practices.

**HISTORY OF ITEM:** This is a new item.

**232 METHOD OF SALE REGULATION****232-1 Amend § 1.12. Ready-to-Eat Food**

**SOURCE:** Southern Weights and Measures Association (SWMA)

**CURRENT PROPOSAL:** To amend the definition of “Ready-to-Eat” found in Section 1.12.1. of the Method of Sale Regulation in Handbook 130 as follows:

**1.12.1. Definition.** - “Ready-to-Eat Food” is restaurant-style or whole fresh food offered or exposed for sale, whether in restaurants, supermarkets, or similar food service establishments like cafeterias or convenience stores, that is ready for consumption, though not necessarily on the premises where sold. Ready-to-Eat Food does not include sliced luncheon products, like meat, poultry or cheese when sold separately.

**BACKGROUND AND JUSTIFICATION:** Some state departments of weights and measures have recently expressed confusion about whether the definition of “Ready-to-Eat Food” allows for the sale of single-serving bananas by count at food serving establishments like cafeterias and convenience stores, where the sale of single whole fresh produce commodities like bananas, apples, and oranges are common. Amending the definition of “Ready-to-Eat Food” to clarify that whole fresh and immediately edible products like bananas fall under the scope of this definition would assist certain states in interpreting the guidelines. Reasons for this change include: (1) The sale of single-serving bananas by count in a food service establishment should be an acceptable practice. It does not mislead consumers; consumers can see,

evaluate, and compare a single banana, apple, orange, etc., and determine its acceptability prior to purchase. The guidelines should be clear to permit the count method of sale for single serving bananas in a food serving establishment by clarifying that whole fresh food are indeed a "Ready-to-Eat Food". (2) According to the U.S. government statistics, over half of adults in America are overweight or obese – and today, obesity in children is rapidly becoming a major health crisis. State governments should be promoting the consumption of nutritious products like bananas, and departments of weights and measures can play a role to ensure that such healthy food choices are available to consumers by writing or amending the method of sale guidelines that make these beneficial foods readily and conveniently available in food serving environments. If the committee prefers a more direct clarification, then simply adding the sentence "Ready-to-Eat Food does include single servings of whole fresh produce commodities like apples and bananas" would be an acceptable alternative.

**HISTORY OF ITEM:** This is a new item. First introduced at the 2003 SWMA Meeting, concern was expressed that the phrase "whole fresh" is overly broad and captures every possible type of produce as well as sushi/seafood items. The SWMA voted to leave the definition of "Ready-to-Eat Food" as is, and recommend that the following note be added immediately after the definition:

**NOTE: The sale of an individual piece of fresh fruit (like bananas, apples, and oranges) is allowed by count at food serving establishments like cafeterias and convenience stores.**

## 232-2 Stored Tare Weights

**SOURCE:** Southern Weights and Measures Association (SWMA)

**CURRENT PROPOSAL:** Add the following language to the Handbook 130, Method of Sale Regulation:

**3.5. Vehicle Tare Weights - Whenever stored vehicle tare weights are employed, the following conditions and requirements shall apply:**

**3.5.1. All stored vehicle scale tare weights shall be determined to the nearest scale division. When stored tare weights are used, issued weight certificates shall identify that fact by placing words such as "stored tare" next to the tare weight. Abbreviations or symbols may be used, provided the terminology is defined elsewhere on the printed ticket.**

**3.5.2. Stored vehicle scale tare weights shall be verified at regular intervals at a frequency to be determined by the jurisdiction with statutory authority for the device, unless preempted by a more stringent guideline/requirement or modification of the vehicle.**

**BACKGROUND AND JUSTIFICATION:** Stored vehicle tare weights are being used and have often been found to be incorrect. Errors found in initial vehicle tare weight surveys range from weighing 8,900 pounds less than the stored tare to weighing 2,680 pounds more than the stored tare. A load of sand or gravel at a cost of \$5.50 per ton with a tare error of 750 pounds has a monetary value for each weighing error of \$2.06. If this error occurs on four transactions per day for 240 working days, it results in an overcharge of more than \$1,977 per year. Since the practice of using stored tare weights is followed by other types of businesses (e.g., landfills and asphalt plants) where prices may reach \$70 or more per ton, an error of 750 pounds in the tare weight of a truck would equal \$26 per weighment. If this truck were involved in four transactions per day for 240 working days, the overcharge would total more than \$25,000 per year.

**HISTORY OF ITEM:** This item was originally submitted to the Committee by the SWMA in 1999 as:

1. Develop a method of sale regulation for stored vehicle tare weights. Require scale operators to maintain accurate and up to date tare weights. The SWMA submitted the following suggested requirements for a new method of sale.

3.5. Vehicle Tare Weights - Whenever stored vehicle tare weights are employed, the following conditions and requirements shall apply:

- 3.5.1. Allowable differences. - The difference between actual tare weight and stored tare weight must not exceed plus or minus 2 %.

3.5.2. All stored vehicle scale tare weights shall be accurately determined to the nearest scale division.

3.5.3. Stored vehicle scale tare weights shall be verified at regular intervals, not to exceed 3 months, unless pre-empted by a more stringent guideline/requirement.

2. Adopt appropriate allowable difference between actual tare weight and stored tare weight.
3. Develop an examination procedure outline and enforcement procedures.
4. Collect data from States that have not yet responded to a survey conducted by the States of Maryland and North Carolina.

In 2000: At the January Interim Meeting the Committee received comments from the States of Maryland and Mississippi. Maryland requested that this item be maintained as developmental and suggested further work to be done by the Southern Weights and Measures Association. Mississippi testified that stored tare weights are illegal in its jurisdiction. The Committee decided to maintain this item as Developmental, and asked that further work should be done on a regional level to clarify this issue and fully develop the proposal.

- The CWMA questioned the 600 lb. Tolerance. CWMA suggested that if a tolerance is to be allowed, it should be no greater than the maintenance tolerance for the tare weight.
- The NEWMA supported continuing development of this issue. NEWMA reported that, while some states already prohibit stored tares in present enforcement programs, many feared that the practice is fairly widespread. NEWMA was supportive of the concept of timely verification of stored tare weights, but NEWMA felt that the time limit and tolerance proposals were not acceptable. NEWMA also expressed concern that stored tare weights may be inconsistent with the provisions of the Uniform Weighmaster Law in that the tare weight was not actually measured by the weighmaster and could invalidate any weight ticket issued.
- The WWMA supported the further development of this item with the consideration of existing tare regulations in other states. WWMA also recommended consideration of the following:
  - Allowable differences should be a percentage of the weight of the vehicle as opposed to a fixed weight.
  - Limit the use of stored tare weights to specific commodities such as rock, sand or gravel.
  - Certified weight tickets must also include a disclosure that reflects the use of a stored tare weight.
  - Do not require a mandatory tare weight verification interval of 3 months.

In 2001: The Committee made this item Informational, and considered several comments from the regional associations, including: (1) Should the use of stored tare weights be limited to weighing in certain applications, such as quarries and landfills; (2) Would it be appropriate to develop a proposal for consideration by the S&T Committee to require disclosure on the weight ticket that stored tare weights were used in arriving at the net weights (as has been done with manual weight entries); (3) Would it be appropriate to remove the mandatory verification interval of three months because some jurisdictions may prefer to verify the accuracy of a stored tare weight at their leisure, and not provide the operator with a time frame during which non-compliance may be permitted; (4) Is the 2 % tolerance too large – should it be limited to the absolute value of the maintenance tolerance for the value of the tare weight?

- The CWMA opposed this item, expressing concerns that it would create a tolerance for tare weights when accuracy was possible. CWMA had further concerns that this allowance would open the door for proliferation into other areas of measurement.
- The WWMA recommended that the item be amended to:

3.5. Vehicle Tare Weights - Whenever stored vehicle tare weights are employed for more than one weighment, the following conditions and requirements shall apply:

3.5.1. Allowable differences - It is the responsibility of the party for whom the stored tare weight was established to maintain the actual tare weight of the vehicle so that it at no time exceeds the stored tare weight.

3.5.2. All stored vehicle scale tare weights shall be accurately determined to the nearest scale division.

3.5.3. Weight certificates issued when stored vehicle tare weights are used shall identify that fact by placing the words “stored tare” next to the tare weight. The letters “ST” may be used in lieu of the words.

3.5.4. The use of stored vehicle tare weights shall be limited to vehicles moving earth, rock, sand, gravel, or asphalt paving material.

- The SWMA recommended that the item be amended to:

3.5. Vehicle Tare Weights - Whenever stored vehicle tare weights are employed, the following conditions and requirements shall apply:

3.5.1. Allowable differences - The difference between the actual tare weight and stored tare weight must not exceed plus or minus 3 scale divisions.

3.5.2. All stored vehicle scale tare weights shall be accurately determined to the nearest scale division. Weight certificates issued when stored vehicle scale tare weights are used shall identify that fact by placing words such as “stored tare” next to the tare weight. Abbreviations or symbols may be used provided the terminology is defined elsewhere on the printed ticket.

3.5.3. Stored vehicle scale tare weights shall be verified at regular intervals at a frequency to be determined by the jurisdiction with statutory authority for the device, unless preempted by a more stringent guideline/requirement or modification of the vehicle.

3.5.4. The use of stored vehicle scale tare weights shall be limited to vehicles moving earth, rock, gravel, refuse, coal, or asphalt paving material.

In 2002: At the January Interim Meeting the Committee reviewed the information concerning this issue and decided to submit this item to the NCWM for a vote using the language originally proposed by the SWMA. The Committee heard comments from Jim Vanderwielen, USDA Packers & Stockyards, that if this proposal is to be applied to poultry that is weighed on a large capacity (vehicle) scale, a tolerance of 3 divisions (in the SWMA amended proposal) would conflict with their requirements. At the July Annual Meeting, this item went before the NCWM and did not receive enough votes to either pass or fail; it was returned to the Committee.

- The CWMA recommended that this item be withdrawn. CWMA is concerned that the item allows a tolerance for a weight that is (or can be) known. The State of Michigan presented an audit report of 77 vehicles weighed with stored tare weights:

Number of Trucks Weighed .....	77
Number of Stored Tares Found in Error .....	77
Percentage of Stored Tares in Error .....	100%
Average Error “Stored Tare Weight” .....	988.3 lbs
Number of Stored Tare Weights Favoring the Device Owner .....	34
Number of Stored Tare Weights Favoring the Customer .....	43
Total Error Weight Favoring the Device Owner .....	46,580 lbs
Total Error Weight Favoring the Customer .....	32,500 lbs
Economic Benefit to the Device Owner .....	14,080 lbs
Estimated Annual Volume (Tons) .....	4,400
Estimated Annual Sales .....	\$26,500,000
Average Estimated Number of Trucks Weighed: Company/Year .....	71,587

- The NEWMA opposed this item as written, and recommended that it be amended to:

3.5. Vehicle Tare Weights - Whenever stored vehicle tare weights are employed, the following conditions and requirements shall apply:

3.5.1. All stored vehicle scale tare weights shall be determined to the nearest scale division. When stored tare weights are used, issued weight certificates shall identify that fact by placing words such as “stored

tare” next to the tare weight. Abbreviations or symbols may be used, provided the terminology is defined elsewhere on the printed ticket.

3.5.2. Stored vehicle scale tare weights shall be verified at regular intervals at a frequency to be determined by the jurisdiction with statutory authority for the device, unless preempted by a more stringent guideline/requirement or modification of the vehicle.

- The WWMA recommended that this item be withdrawn.
- The SWMA recommended that this item be withdrawn. SWMA recognized that stored tare weights are in use in all of the states, and encouraged each jurisdiction to address these situations on a case-by-case basis.

In 2003: At the January Interim Meeting the Committee decided to amend this item using language provided by the NEWMA, and submitted it to the NCWM for a vote. The Committee received an additional proposal to amend this item as follows: In paragraph 3.5.1., in the first sentence, remove the word “determined” and replace it with “accurate”. The Committee decided to not make this amendment. At the July Annual Meeting, this item went before the NCWM and did not receive enough votes to either pass or fail; it was returned to the Committee.

- The CWMA recommended that this item be withdrawn, and provided the following reasons: (1) Field data has revealed high errors; (2) Jurisdictions should not have to assume the responsibility of the user; (3) Non-uniformity of enforcement across jurisdictions; (4) Everyone should be enforcing net weight.
- The WWMA recommended that paragraph 3.5.1. of this item be amended to:

3.5.1. All stored vehicle scale tare weights shall be ~~determined~~ verified to the nearest scale division. When stored tare weights are used, issued weight certificates shall identify that fact by placing words such as "stored tare" next to the tare weight. Abbreviations or symbols may be used, provided the terminology is defined elsewhere on the printed ticket.

- The SWMA supported the change proposed by the WWMA.

### **232-3 Scaling Methods for Trees, Sawlogs & Veneer Logs**

**SOURCE:** Central Weights and Measures Association (CWMA)

**CURRENT PROPOSAL:** Amend the Method of Sale Regulation in Handbook 130 by adding the following:

**2.xx. Trees, Sawlogs & Veneer Logs – Scaling Methods.** The requirements of this section provide for unbiased and consistent estimates of timber volumes offered for sale across regions and for different timber types.

#### **2.xx.1. Definitions**

- (a) Tree:** Woody plant having one erect perennial stem or trunk at least 3 inches (7.5 cm) in diameter at breast height (dbh).
- (b) Sawlog:** A roundwood product of a tree, usually 8 feet (2.4 m) in length or longer, processed into a variety of sawn products such as lumber, ties, cants, and timbers.
- (c) Veneer Log:** A roundwood product of a tree, usually 8 feet (2.4 m) in length or longer, either rotary cut, sliced, or sawn into a variety of veneer products such as plywood, panels, and veneer.
- (d) Firmwood:** The content of a tree or log that is sound.

**2.xx.2. Quantity.** Representations for trees and logs shall be in terms of cubic foot (or cubic meter) representing the net firmwood content of a saw or veneer log. It is obtained from such a log’s two end diameters (inside the bark) and its gross length using Smalian’s formula (with appropriate deductions for rot, holes, char, and missing wood):

$$\text{Volume} = \frac{\text{Length}(\text{Area of small end} + \text{Area of large end})}{2}$$

**BACKGROUND AND JUSTIFICATION:** In the U.S. we generally use traditional product yield-based board-foot scales to measure trees. These scales were developed in the 19<sup>th</sup> century according to practices and tree sizes prevalent then. Since that time our forests have transitioned to a 2<sup>nd</sup> growth, smaller diameter, resource and those antiquated scales have become grossly inaccurate in estimating true yield potential. To compound the matter, different states and regions of the country use different board-foot scales to estimate yield. The lack of a standard U.S. tree/log scaling system confounds volume and value comparisons across regions. The various current scales based on board feet contain biases for longer length and smaller diameter logs that distort volume estimates of such logs. The current product yield based scale systems were derived nearly two centuries ago based on the type of resources and technology then available. They have not been changed or updated to reflect changes in technology and resource size, making them outdated and inaccurate in the contemporary context.

**HISTORY OF ITEM:** This is a new item. First introduced at the 2003 CWMA Interim Meeting, the CWMA recommended adoption of this item. The SWMA also considered this item at their 2003 meeting and recommended that this item remain developmental until interested industry members can be notified and involved.

## **232-4 Temperature Compensation for Petroleum Products**

**SOURCE:** Southern Weights and Measures Association (SWMA)

**CURRENT PROPOSAL:** Amend the Method of Sale Regulation in Handbook 130 by adding the following:

**2.20.3. Petroleum Products - Petroleum products shall be sold with the volume adjusted to 60 degrees Fahrenheit throughout the distribution system except for retail motor fuel dispensers.**

**BACKGROUND AND JUSTIFICATION:** Selling fuel by adjusting the volume to 60 degrees Fahrenheit throughout the distribution system is the equitable way that fuel can be sold without the buyer or seller gaining a competitive advantage. By allowing a distributor to buy product on gross volume at the wholesale level and sell it by net gallons retail, where he can manipulate the method of sale depending on the time of year, is not equitable. A single method of sale should be required so that a prospective customer can make a value comparison. There is no practical way the average customer can make a value comparison when some locations sell product temperature compensated and other locations sell uncompensated.

**HISTORY OF ITEM:** This is a new item. First introduced at the 2003 SWMA Meeting without the exception for retail motor fuel devices, for political reasons the SWMA recommended adoption of this item with the exception in place. A similar item was proposed in 2000 by the NEWMA. This 2000 proposal was intended to mirror a proposal made to the S&T Committee to add temperature compensation to the Vehicle Tank Meter Code and recognize it for all devices in the Liquid Measuring Device Code. The NEWMA wanted the Method of Sale Regulation changed to permit compensated sales of petroleum products, and noted that Pennsylvania, New Hampshire, Maine, and Canada all permit compensated sales in some applications. This item remained Informational in 2000, and was withdrawn in 2001.

## **232-5 Cooking Oils**

**SOURCE:** Central Weights and Measures Association (CWMA)

**CURRENT PROPOSAL:** Amend the Method of Sale Regulation in Handbook 130 by adding the following:

**1.xx. Cooking Oils. All cooking oils shall be sold by liquid measure.**

**BACKGROUND AND JUSTIFICATION:** At one time, larger containers of peanut oil were packaged primarily for institutional use and were often labeled by weight. Smaller packages for consumer use were labeled by liquid volume, as has been customary with all cooking oils. But with the more recent increase in popularity of turkey fryers that are designed to fry whole turkeys in peanut oil, large containers of the commodity have become common in the retail market as well. Some manufacturers label these containers by weight (i.e., 35 lb or 50 lb). These conflicting methods of sale frustrate consumers' ability to make value and price comparisons.

Handbook 130 Weights & Measures Law, Section 17 seems permissive in allowing liquids to be sold by liquid measure or by weight. However, this law was amended in 1989 to stress the importance of providing adequate information that

permits the buyer to make price and quantity comparisons, opening the door for more stringent requirements where necessary. As stated in the 1989 NCWM report, the Packaging and Labeling Regulation and Method of Sale Regulation are subsets of the Weights & Measures Law. Certain labeling or method of sale requirements in those regulations may appear to be in contradiction to the Weights and Measures Laws, but are really simply more specific to types of packages or commodities.

It would seem appropriate to add a method of sale requirement for cooking oils to Handbook 130 that will give the consumer the information intended by the 1989 NCWM Laws and Regulations Committee when they amended the Weights & Measures Law.

**HISTORY OF ITEM:** This is a new item. First introduced at the 2003 CWMA Interim Meeting, CWMA recommended adoption of this item. A similar item was proposed in the early 1980s, which led to the 1983 adoption of the language in Handbook 130, Interpretations and Guidelines § 2.3.13.

## **236 UNIFORM NATIONAL TYPE EVALUATION REGULATION**

### **236-1 Amend §§ 2.1. Active Certificate of Conformance, 2.2. Device, and 3. Certificate of Conformance**

**SOURCE:** Northeast Weights and Measures Association (NEWMA)

**CURRENT PROPOSAL:** Amend §§ 2.1 Active Certificate of Conformance, 2.2 Device, and 3. Certificate of Conformance, of the Uniform National Type Evaluation Regulation as follows:

**2.1. Active Certificate of Conformance.** - A document issued based on testing by a Participating Laboratory, which the certificate owner maintains in active status under the National Type Evaluation Program (NTEP). The document constitutes evidence of conformance with a type with the requirements of this document and the NIST Handbooks 44, 105-1, 105-2, or 105-3. By maintaining the Certificate in active status, the Certificate ~~owner~~ **holder** declares the intent to continue to manufacture or remanufacture the device consistent with the type and in conformance with the applicable requirements. For manufacturers of grain moisture meters, maintenance of active status also involves annual participation in the NTEP Laboratory On-going Calibration Program, OCP (Phase II). A device is traceable to an active Certificate of Conformance if **it is of the same type identified on the Certificate of Conformance and** it was manufactured during the period that the Certificate was maintained in active status. (Amended 2000, 2001, ~~200x~~)

**2.2. Device.** - ~~Device means any weighing and measuring equipment as defined in § 2.15. Commercial and Law Enforcement Equipment. A piece of commercial or law enforcement equipment as defined in § 2.15. Commercial and Law Enforcement Equipment. A device may be a single unit or a combination of compatible, separate main elements. This shall include, at a minimum, those parts of the device that perform the measurement and process the measurement signals up to the first indicated or recorded value of the final quantity on which the transaction is based. (Amended 200x)~~

**Section 3. Certificate of Conformance.** - The Director shall require a device to be traceable to an active Certificate of Conformance prior to its installation or use for commercial or law enforcement purposes. **If the device consists of compatible, separate main elements, each separate main element shall be traceable to an active Certificate of Conformance.**

**BACKGROUND AND JUSTIFICATION:** The change in Section 2.1. changes the word "owner" to "holder". The Board of Directors believes that this term best describes the nature of the relationship. For example, NTEP issues a Certificate and may withdraw it or make it inactive if the holder fails to meet certain obligations under the Administrative Policy. The nature of the incorporation of the NCWM prevents the corporation from transferring things of material value. The term "owner" would imply that in issuing the Certificate the NCWM had transferred something of value to the manufacturer. In addition, the Certificate may be thought of as being in the public domain since its use is currently not restricted, and certainly state and local jurisdictions freely copy and distribute it in the course of enforcing the W&M regulations. The term "holder" still carries the important rights and privileges, such as ability to transfer the Certificate if company assets to produce the device are sold and the authority to determine if a device is not traceable when metrological changes to the device were made by some other party.

The amendments to the definition of "device" in Section 2.2. include parallel changes to Section 3 to clarify that a device (i.e., an entire weighing or measuring instrument) may be a single unit or a combination of separate main elements. The other part of the change to this section goes on to clarify what devices or elements must have Certificates consistent with current NTEP policies. This is clearly stated in NTEP Administrative Policy but does not have a parallel statement in the regulation. While we are making changes it seems appropriate to fix both things.

A state has noted that language of the present NTEP Regulation may not permit the mating of separate main elements unless the combination has a separate Certificate. The language in Section 3 uses the singular form (i.e., "a" Certificate of Conformance), which could be interpreted to mean that every device must have "one" Certificate. The U.S. has permitted mixing and matching compatible main elements since before the NTEP program began. All actions of the NCWM in setting up NTEP support that position as the term "element" is consistently included with the term "device." Up until now there were no challenges to the mating of separate components to produce a weighing or measuring "device." The amendment to Section 3 would formally state that policy in the regulation. It also clarifies that the single unit may have a Certificate of its own, or that each separate main element must have its own Certificate.

**HISTORY OF ITEM:** This is a new item. First introduced at the 2003 NEWMA Interim Meeting, NEWMA recommended adoption of this item.

## **237 ENGINE FUELS, PETROLEUM PRODUCTS, AND AUTOMOTIVE LUBRICANTS REGULATION**

### **237-1 Petroleum Subcommittee Agenda Items**

**SOURCE:** Petroleum Subcommittee

**CURRENT PROPOSAL:** Based on proposals from and Subcommittee, and comments received from the NCWM membership, the Committee has an ongoing agenda for the Subcommittee that includes the following projects:

- **Federal Kerosene Dye Information** - It was suggested that information on the new Internal Revenue Service kerosene dye policies be distributed to the States. The Subcommittee will distribute this information.
- **Update the Engine Fuels, Petroleum Products, and Lubricants Laboratory Guideline** - This guideline is contained in the Interpretations and Guidelines Section of NIST Handbook 130 and was last updated in 1994. Since that time, the cost of equipment has changed and new test methods have been developed. The Subcommittee proposes to revise and update the guideline.

**HISTORY OF ITEM:** This item was originally submitted to the Committee by the Petroleum Subcommittee as the Subcommittee's 1999-2000 work plan. This work plan originally included the following item:

- **Automotive Lubricants** - The Engine Fuels, Petroleum Products, and Automotive Lubricants Regulation (EFR) implies that the document covers lubricants. When the regulation was developed, the Subcommittee gave developing engine fuel requirements priority. The Subcommittee has proposed requirements for lubricants (see item 237-2).

In 2000: At the January Interim Meeting the Committee added the following item to the Subcommittee's agenda:

- **Publication 21:** The Western Weights and Measures Association recommends that the Petroleum Subcommittee also revise the sampling procedures and container requirements in NCWM Publication 21 - *Petroleum Products Sampling Procedures and Safety Manual* to provide adequate precautions regarding the use of clear glass containers for product specification conformance testing. This recommendation is based on data presented to the NCWM by Chevron Products Company and Tennessee.

At the July Annual Meeting the Committee submitted a budget proposal to the NCWM Board of Directors requesting funds to allow the Subcommittee to complete their assigned tasks.

In 2001: At the July Annual Meeting the Committee received information from the NCWM Board of Directors that monetary support for the Subcommittee's work would be provided. The Committee approved the Subcommittee agenda

items, and prioritized them as: (1) Federal Kerosene Dye Information; (2) Publication 21; (3) Update the Engine Fuels, Petroleum Products, and Lubricants Laboratory Guideline; and (4) Automotive Lubricants.

- The CWMA heard from Mike Belue, Belue Associates, who spoke on behalf of the American Petroleum Institute (API). API recommended that references to additional standards be included in the Automotive Lubricants item where such standards do not conflict. For example: API 1509 references ASTM D 4485 and SAE J183. API 1509 describes API's Engine Oil Licensing Program; ASTM D 4485 provides the specifications for current API engine oil categories, and SAE J183 provides the specifications for obsolete categories. The CWMA supports the recommendation of the WWMA regarding the prioritization of Subcommittee agenda items.
- The SWMA recommended splitting this item into separate items.
- The WWMA recommended that this item be split into four individual proposals and prioritized as follows:
  - The Update the Engine Fuels, Petroleum Products, and Lubricants Laboratory Guideline item is currently being worked on by California and Tennessee. This update should strive to be completed and provided to the NCWM by the 2002 Interim Meeting.
  - The Federal Kerosene Dye Information item should be addressed at a later date.
  - For the Automotive Lubricants item, the WWMA received information from Chevron suggesting the following amendments to this regulation:
    - In Appendix A, remove the current § 2.12(a) and replace it with: (a) It shall meet the engine oil requirements established in the latest revision of the American Petroleum Institute Publication 1509 *Engine Oil Licensing and Certification System* and American Society of Testing and Materials Standard ASTM D 4485 or the Society of Automotive Engineers Standard SAE J183. (b) It shall identify the API Service Category or Categories that it meets. Refer to API Publication 1600 for current category descriptions and SAE J183 for obsolete categories. (c) It shall meet the engine oil viscosity requirements established in SAE J300.
    - In Appendix A, amend § 2.13(a) as follows: (a) It meets the service requirements contained in the latest revision of SAE Informational Report on axle and manual transmission lubricants SAE J308; and lubricant service designations described in API Publication 1560.
  - For the Publication 21 item, the WWMA recommended amending § IV. B., Types of Sample Containers, as follows: Sample containers may be clear or brown glass bottles, or metal cans. The clear bottle is advantageous because it may be examined visually for cleanliness, and also allows visual inspection of the sample for free water or solid impurities. The brown glass bottle should be used for samples in which the octane is a concern because it affords some protection from light, which can alter the characteristics of the sample. Plastic coated bottles are available which provide protection from shattering. The only suitable metal cans are those with the seams soldered on the exterior surface with a flux of rosin in a suitable solvent, which is easily removed with gasoline. The WWMA also recommended that this publication be eliminated as a stand-alone document, and instead be included in NIST Handbook 130, Uniform Laws and Regulations, under the Interpretations and Guidelines section.

In 2002: At the July Annual Meeting the Committee decided that each item on the Subcommittee agenda should be addressed separately. Based on comments received, the Committee decided that two of the items required immediate attention, while two could wait. The Committee separated the items for immediate attention into individual agenda items: 237-2 Uniform Engine Fuels, Petroleum Products, and Automotive Lubricants Regulation (the Automotive Lubricants item); and 237-3 Petroleum Products Sampling Procedures and Safety Manual (the Publication 21 item). The remaining two items: Engine Fuels, Petroleum Products, and Lubricants Laboratory Guideline; and The Federal Kerosene Dye Information, would be addressed at a later date.

- The SWMA recommended that the item be separated into four individual agenda items:
  - (1) Engine Fuels, Petroleum Products, and Lubricants Laboratory Guideline;
  - (2) The Federal Kerosene Dye Information;
  - (3) Uniform Engine Fuels, Petroleum Products, and Automotive Lubricants Regulation; and
  - (4) Publication 21, Petroleum Products Sampling Procedures and Safety Manual.

In 2003: At the January Interim Meeting the Committee received an update from Subcommittee Chair, Ron Hayes, MO. Ron reported that the "Federal Kerosene Dye Information" would be addressed in a new section to be added to a future version of ASTM D 3699 Standard Specification for Kerosene. The Committee had concerns about the effectiveness of

the EFR since it is impossible to keep the document up to date. The Committee considered two possibilities: (1) continuously revising this guideline to include additional equipment for testing premium diesel, and updating equipment costs; and (2) removing the guideline from NIST Handbook 130 and posting it on the internet where it can be updated on a more frequent basis. The Committee solicited comments concerning the proposed options. At the July Annual Meeting the Committee received no comments on this issue.

- The WWMA recommended that this be removed from the Agenda and Handbook 130, and posted on the internet where it can be updated on a more frequent basis. NIST has agreed to post it on their website if that is what the committee wants.
- The SWMA recommended that this item remain Information until it is more fully developed.

## **237-2 Engine Fuels, Petroleum Products, and Automotive Lubricants Regulation**

**SOURCE:** Western Weights and Measures Association (WWMA)

**CURRENT PROPOSAL:** Modify the Uniform Engine Fuels, Petroleum Products, and Automotive Lubricants Regulation as shown in Appendix A.

**BACKGROUND AND JUSTIFICATION:** The title “Uniform Engine Fuels, Petroleum Products, and Automotive Lubricants Regulation,” (or EFR) implies that the document covers lubricants. When the regulation was developed, the Subcommittee made developing engine fuel requirements a priority, with the understanding that in the future they would address lubricants. The uniform law gives broad authority to regulate lubricants; however, the regulation has no requirements. The Subcommittee proposed developing requirements for lubricants for the Committee’s consideration.

**HISTORY OF ITEM:** The WWMA had received numerous comments stating the need to update the Engine Fuels, Petroleum Products, and Automotive Lubricants Regulation. This regulation had not been updated since 1994, and the WWMA recommended an update based upon data presented by Chevron Texaco Corporation. This item was originally one of the four items on the Petroleum Subcommittee’s Agenda under 237-1 (proposed in 1999).

In 2002: The Committee broke this item out as an independent item on its agenda, and the Subcommittee proposed the language found in Appendix A (for the history of this item prior to 2002, please see item 237-1). Randy Jennings, Tennessee, reported that California (Dave Lazier and Dennis Johannes) and the Petroleum Subcommittee members from Chevron Texaco had taken the lead on this issue. Mike Belue, Belue and Associates, reported that the State of California and Chevron Texaco had worked together to include the latest specifications and definitions in the document. The Committee recommended that the proposed changes be studied at the regional meetings, and comments be submitted at the 2003 Interim Meeting.

- The WWMA heard comments from David Heck that the American Petroleum Institute (API) supported the latest changes to the Engine Fuels, Petroleum Products, and Automotive Lubricants Regulation. The WWMA recommended that the Committee move this item forward as a voting item.
- The SWMA supported the draft, and recommended that the Committee consider this item.

In 2003: At the January Interim Meeting the Committee announced that the changes proposed by the WWMA in 2002 had been published in Appendix A of the Committee’s 2002 report. The Committee recommended that these changes be studied at the regional weights and measures association meetings, and comments be submitted at the 2004 Interim Meeting. The Committee took no action on this item during the July Annual Meeting.

- The WWMA recommended that this item go forward as a voting item in 2004.
- The SWMA heard comment from Mike Belue, Belue and Associates, that lubricants other than motor oil have not been fully addressed yet. The SWMA recommended that this item remain informational.

## **237-3 Biodiesel Fuel**

**SOURCE:** Central Weights and Measures Association (CWMA)

**CURRENT PROPOSAL:** Amend the Handbook 130 Engine Fuels, Petroleum Products, and Automotive Lubricants Regulation as follows.

1. Strike § 1.8. Biodiesel:

~~1.8. Biodiesel. — means a blend consisting of diesel fuel and a substantial amount of esterified animal fats and/or vegetable oil(s).~~

And replace it with the definition from ASTM D 6751:

**1.8. Biodiesel. - means a fuel comprised of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats, designated B100 (Source: Standard ASTM D 6751).**

2. Add the following to the definition of Biodiesel:

**1.8.1. Biodiesel Blend. - A fuel comprised of a blend of biodiesel fuel with petroleum-based diesel fuel, designated Bxx.**

**1.8.2. In the abbreviation Bxx, the xx represents the volume percentage of biodiesel fuel in the blend.**

3. Adopt a definition for a Biodiesel Blend consistent with ASTM D 6751 by adding:

**2.13.1. B100 biodiesel shall meet the most recent version of ASTM D 6751, Standard Specification for Biodiesel Fuel (B100) Blend Stock for Distillate Fuels.**

**2.13.2. Biodiesel and diesel blends shall meet the following requirements: the base diesel fuel shall meet the requirements of ASTM 975, and the biodiesel blend stock shall meet ASTM D 6751.**

**2.13.3. Exception - biodiesel may be blended with diesel fuel whose sulfur or aromatic levels are outside Specification ASTM D 975 Grades 1-D, 2-D, and low sulfur 1-D and 2-D, provided the finished mixture meets pertinent national and local specifications and requirements for these properties.**

**BACKGROUND AND JUSTIFICATION:** Laws and regulations require that accurate and adequate information be placed on commodities allowing consumers to make price and quantity comparisons. For our economy to function properly consumers must also be able to rely on manufacturers product “claims”. Products must meet manufacturer specifications and claims.

When ASTM first developed the biodiesel specification in 1993, it proposed a specification for biodiesel use as a pure fuel, called B100. Through the ballot process, several engine companies expressed reservations that they had no experience with using biodiesel in blends over 20 % with diesel fuel (B20). B20 has now been used successfully in over 40 million on-road miles over the last 10 years with no changes to the fuel systems on conventional diesel engines. With the higher cost of biodiesel, very few customers used blends higher than B20, and neither the biodiesel industry nor the engine industry was interested in investing the money and resources needed to meet a B100 standard.

Since B20 was the highest level product envisioned with commercial potential, and since the engine community would not support inclusion higher than 20 % without further testing, the ASTM standard was changed from an independent B100 standard to a blend stock standard. The ASTM Biodiesel Task Force developed D 6751 as the set of properties that B100 must meet before being blended into diesel fuel up to 20 % biodiesel by volume. For blends higher than B20, the user should consult with their engine company prior to use. The major questions with blends over B20 are related to costs, rubber and gasket compatibility with high blend of biodiesel and cold flow properties of high blends.

As a blend-stock standard, the ASTM Biodiesel Standard was developed in a manner similar to that of 1-D and 2-D diesel fuel, which are also frequently blended in the commercial marketplace as a means to improve the cold flow properties of 2-D in winter months. If the parent fuels meet their respective specifications, they can be blended and there is no separate set of specifications for the blended mixture. The current requirement of the biodiesel specification is as follows: if biodiesel meets D 6751 and diesel meets D 975 (either 1-D or 2-D), then the two can be blended up to 20 % biodiesel and there is no separate set of properties required for the B20 mixture. For example, as with 2-D, blends of

B20 can contain higher levels of 1-D for improved cold flow properties in winter. This method has served industry and consumers well, especially in the formative stages of biodiesel development.

There are two issues that come up from time to time. The first issue is that since biodiesel costs more than conventional diesel, there is the possibility that fuel distributors will advertise that they are putting in more biodiesel than they are delivering and, thus, derive undue profits. If a distributor claims that they are selling B20 or B2 and they are putting in less than one half of one percent, the distributor is misrepresenting the product. The biodiesel industry claims this is not a pump labeling issue but an enforcement issue.

The second issue is the claim that biodiesel is being blended with diesel fuel when products such as raw vegetable oil or other oils, which do not meet D 6751, are blended with diesel fuel. The biodiesel industry claims this is an enforcement issue. The National Biodiesel Board has established a quality control program (BQ-9000) that oversees producers and suppliers of biodiesel. Use of BQ-9000-certified suppliers is an effective means to mitigate this potential issue, as is requiring that the distributor provide proof of EPA biodiesel registration. To obtain an EPA registration for biodiesel the supplier must commit to meeting D 6751. Again, aggressive competition, as well as the educational and promotional activities by the industry, have mitigated the requirement that biodiesel must meet D 6751. NCWM adoption of the D 6751 language will help in those efforts.

While B20 and lower levels of biodiesel fuel are considered “Fill and Go” and require no changes to the engine or fuel system, levels of biodiesel higher than B20 may need to have different gaskets and hoses. While blending biodiesel greater than 20 % does not readily occur in today’s market place, it may in the not too distant future. Therefore, the biodiesel industry supports accurate labeling for all fuel dispensers and encourages the NCWM to adopt these recommendations.

As the price of biodiesel moves closer to the price of diesel fuel and biodiesel ceases to be a niche product blended into diesel for the Energy Policy Act of 1992 (EPA) compliance (cleaner air and superior lubricity and cetane), it becomes just one of the myriad compounds which could make up conventional diesel fuel. Refiners could blend in biodiesel to reduce the sulfur content or aromatic content of the finished blend. They could use it to replace their existing lubricity additives. If the price of biodiesel was more equal to diesel, they may add 1 % today, 5 % the next day, and 20 % the next day. As long as the finished blend meets the D 975 “Fill and Go” specification, the level of biodiesel could range as high as 20 %.

The proposed pump labeling requirement (requiring that pumps containing over 2 % biodiesel be labeled with the blend percentage) would essentially eliminate that flexibility and could significantly reduce the amount of biodiesel that is eventually used and consumed. ASTM is currently developing a Biodiesel “Fill and Go” specification for D 975 that is not based on the parent fuels, but on the finished fuel and what is satisfactory for operation in a diesel engine. This may also mean changes to D 6751, which is a stand-alone specification. The current thinking is that the upper biodiesel concentration limit for the D 975 “Fill and Go” specification will be 20 % although it is possible that it could be higher or lower. Whatever the concentration of biodiesel, if the finished blend meets the D 975 “Fill and Go” specification, the fuel is D 975-grade diesel fuel and would have to be labeled such. According to industry, existing labeling contained in NIST Handbook 130 is sufficient.

If the NCWM adopts the future D 975 “Fill and Go” specification and any changes required for D 6751, then it appears prudent to place the pump labeling exemption at 20 % biodiesel at the present time, with the understanding that it might be higher or lower in the future based on the outcome of the ASTM “Fill and Go” recommendations.

**HISTORY OF ITEM:** This item was originally submitted to the Committee by the CWMA in 2002 as:

1. Strike § 1.8 Biodiesel :

~~1.8. Biodiesel. means a blend consisting of diesel fuel and a substantial amount of esterified animal fats and/or vegetable oil(s).~~

And replace it with:

1.8 Biodiesel. - means a fuel comprised of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats, designated B100. (Source Standard ASTM D 675.)

and:

1.8.1. B20 Biodiesel. - means a blend of biodiesel and diesel fuel of which the biodiesel portion is nominally 20 volume percent.

2. Add two new sections:

2.13.1. B100 biodiesel shall meet the most recent version of ASTM D 6751, Standard Specification for Biodiesel Fuel (B100) Blend Stock for Distillate Fuels.

2.13.2. Biodiesel and diesel blends shall meet the following requirements: The base diesel fuel shall meet the requirements of ASTM 975 and the biodiesel blend stock shall meet ASTM D 6751.

2.13.3. Exception - biodiesel may be blended with diesel fuel whose sulfur or aromatic levels are outside Specification D 975 Grades 1-D, 2-D, and low sulfur 1-D and 2-D, provided the finished mixture meets pertinent national and local specifications and requirements for these properties.

3. Add the following two sections:

3.13. Biodiesel

3.13.1 How to identify Biodiesel. - Biodiesel shall be identified by the capital letter B followed by the numerical value volume percentage. (Example: B20)

Retail Dispenser Labeling. - Each retail dispenser of biodiesel shall be labeled with the capital letter B followed by the numerical value volume percent biodiesel and ending with the word "biodiesel." (Example: B20 biodiesel)

Exception. - Diesel fuel containing twenty or less percent biodiesel is exempted from requirements 3.13.1 and 3.13.2.

Ron Hayes, Missouri, recommended adding a section requiring fuel suppliers to disclose the biodiesel content on delivery tickets or bills of lading, if the biodiesel content exceeds the appropriate level for dispenser labeling requirements.

In 2003: At the January Interim Meeting the Committee heard testimony from Steve Howell, MARC-IV, representing the biodiesel industry, testified on each of the three proposed section changes. Mr. Howell is the technical director of the National Biodiesel Board (NBB) and serves as chairman of the ASTM Biodiesel Task Force.

The biodiesel industry supports the proposed new definition that is the equivalent to ASTM's definition, and also recommends adding an additional definition for biodiesel blends. "Biodiesel Blends" are blends of biodiesel and diesel fuel. Mr. Howell stated that the current biodiesel definition contained in NIST Handbook 130 is incorrect and should be changed. ASTM, along with the biodiesel industry, has worked to define what biodiesel is and is not. ASTM standards also define the difference between pure biodiesel, or B100, and blends of biodiesel with petroleum diesel. The ASTM specification for biodiesel has been developed to ensure satisfactory engine operation with B20 (20 % biodiesel) blends and blends of less than 20 % biodiesel. Adopting the definitions that ASTM has developed for biodiesel will eliminate confusion between industry standard biodiesel and other materials that have been inappropriately called biodiesel (e.g., coal slurries, raw vegetable oils, partially reacted oils, etc.) that can cause serious engine problems. It will also assist in minimizing confusion on the type of product a consumer purchases, such as biodiesel B100 or a blend of biodiesel with petroleum diesel.

At the July Annual Meeting the Committee kept this item as informational, and included the following comments:

Unlike other fuels, there is no specification for biodiesel contained in Section 2 or NIST Handbook 130. This proposed change would adopt the current language contained in ASTM specification D 6751. The proposed amendment would help ensure that the customer receives fuel that meets ASTM specifications.

The ASTM specification for diesel fuel D 975, containing biodiesel in blends of B20 or below, is likely to change very soon. This new group of fuels is being termed a "Fill and Go" category of D 975. Separate "Fill and Go" specifications are also being considered for other fuels such as water-emulsified and ethanol-emulsified diesel. The anticipated change

is to place specifications on fuels, which require no engine modifications but are different than conventional petroleum-based diesel fuels, which include different parameters than those currently contained in D 975. The D 975 “Fill and Go” specifications may also impact biodiesel specification D 6751 as it relates to the properties that either parent fuel must meet prior to blending biodiesel B20 or below. If ASTM adopts new specifications, it is hoped that the NCWM would consider similar adoption.

Assuming that the NCWM will adopt ASTM changes or modifications to D 975 or D 6751, adopting the language in the current ASTM specification seems to be the prudent course of action.

## 237-4 E diesel

**SOURCE:** Central Weights and Measures Association (CWMA)

**CURRENT PROPOSAL:** Have the Petroleum Subcommittee develop specifications and retail dispenser labeling requirements for E diesel.

**BACKGROUND AND JUSTIFICATION:** E diesel is a blend of Standard Number 2 diesel fuel containing up to 15 % ethanol by volume. The blend may also contain proprietary additives from 0.2 to 5.0 % by volume to maintain certain fuel properties and blend stability. E diesel is being sold commercially for off-road applications and is being used in several on-road demonstration fleets. Currently there is no consensus on specifications that E diesel must meet. There are also no labeling requirements for retail dispensers selling E diesel.

A group of E diesel stakeholders have formed the E Diesel Consortium to address the technical and regulatory issues with this fuel. The Consortium has also approached ASTM about developing an E diesel specification. The Consortium is concerned that, without a detailed minimum specification, it could be possible to sell diesel ethanol blends with are of insufficient quality for their intended use.

**HISTORY OF ITEM:** This item was originally submitted to the Committee by the CWMA in 2002. At its Interim meeting in the fall of 2002, the CWMA heard from E diesel Consortium representative Robert Reynolds. Mr. Reynolds provided an update on the activities of the E diesel Consortium and requested that E diesel be put on the NCWM Committee’s agenda as a “Developing Item.” No action was taken on this item in 2003.

## 237-5 Nozzle Requirements for Diesel Fuel

**SOURCE:** Central Weights and Measures Association (CWMA)

**CURRENT PROPOSAL:** Add the following to § 3.3 of the Handbook 130 Uniform Engine Fuels, Petroleum Products, and Automotive Lubricants Regulation:

**3.3.X. Nozzle Requirements for Diesel Fuel. - Each dispensing device from which diesel fuel is sold shall be equipped with a nozzle spout having a terminal end with an outside diameter of not less than 23.63 mm (0.930 in).**

**BACKGROUND AND JUSTIFICATION:** Consumers are dispensing diesel fuel into non-diesel vehicles despite the proper labeling of retail motor fuel dispensers. Adding this text to Handbook 130 will help eliminate the problem.

**HISTORY OF ITEM:** This item was originally submitted to the Committee by the SWMA in 1996.

In 1997: At the January Interim Meeting the Committee heard testimony from the American Automobile Manufacturer’s Association (AAMA) that the recommended fill pipe diameter was compatible with current diesel powered vehicles, as well as all those on the drawing board for the future. The AAMA expressed support for this item. At the July Annual Meeting the Committee heard testimony indicating that this requirement would be widely supported if it were amended to permit industry time to replace diesel dispenser nozzles as they wore out or were broken. The Committee recommended this item for vote with a delayed enforcement date of 12 months after its effective date (i.e., if adopted in July, 1997 and effective in January, 1998, it would not be enforced until January, 1999). The NCWM voted on this item in 1997; it failed and was not adopted.

In 2000: The SWMA again submitted this item to the Committee.

In 2001: The Committee voted to withdraw this item at the July Annual Meeting.

In 2002: The CWMA again submitted this item to the Committee.

In 2003: At the July Annual Meeting the Committee heard testimony that not all diesel passenger cars manufactured before 1996 may be able accommodate the larger nozzle size, although no supporting data was provided. The NCWM voted on this item in 2003; it did not receive enough votes to either pass or fail, and so was returned to the Committee.

- The CWMA submitted comments stating that this item should be voluntary; a recommendation not a law. The CWMA does not support this item going forward.
- The NEWMA recommended that this item be withdrawn.
- The WWMA recommended that this item be withdrawn.
- The SWMA supports this item and recommends that it go forward as a voting item.

## 240 EXAMINATION PROCEDURE FOR PRICE VERIFICATION

### 240-1 Amend § 6.2 Other

**SOURCE:** Western Weights and Measures Association (WWMA)

**CURRENT PROPOSAL:** Add the following to § 6.2 of the Handbook 130 Examination Procedure for Price Verification:

**(x) A cash register or computer monitor used to list and total customer purchases must be positioned so that its indications may be observed from a reasonable customer location and/or have a remote indicator display so that its indications may be observed from a reasonable customer location.**

**BACKGROUND AND JUSTIFICATION:** While the definition of a point-of-sale system includes a requirement for a weighing and measuring device and requires indications to be visible in a direct sale (NIST Handbook 44, G-UR.3.3.), cash registers and computer monitors that do not incorporate a weighing or measuring device are not subject to the requirement that the indication be visible to a consumer. The WWMA recommends that the practice of consumers having access to price information as the transaction is in progress be standardized. Consumers would then be able to instantly confirm prices, businesses could correct incorrect prices during the transaction, and the benefit of correct prices and time saved would help everyone involved. Many businesses that use cash registers or computer monitors currently have remote indicators that meet the requirements, and for the ones that do not, technology and equipment is available to provide such indications at an affordable price.

**HISTORY OF ITEM:** This item was originally submitted to the Committee by the WWMA in 2002. The SWMA considered this proposal that same year, and expressed concern about whether or not this is a weights and measures problem. The SWMA believed that the scope of this requirement is very broad and would impact a wide range of retail establishments, many of which may not come under the jurisdiction of weights and measures authority since the systems may not be attached to a scale or meter. The SWMA also questioned whether or not Publication 19 is the appropriate place to put this requirement if it is considered a weights and measures problem.

In 2003: At the January Interim Meeting the Committee made this item Informational, and decided that it did not believe that this item should be placed in the Handbook 130 Examination Procedure for Price Verification. The Committee believed that, if this item moves forward, it should be placed in the Handbook 130 Weights and Measures Law, Section 22, Prohibited Acts. At the July Annual Meeting the Committee decided to keep this item as Informational.

- The CWMA was split on this item. Some states wanted it withdrawn, while others wanted to see it adopted. One state suggested that the word *display* be added so that the item would read as follows:

**(x). A cash register or *display* computer monitor used to list and total customer purchases must be positioned so that its indications may be observed from a reasonable customer location and/or have a remote indicator display so that its indications may be observed from a reasonable customer location.**

- The WWMA supported this item as proposed, but recommended a delayed enactment date to allow industry time to adjust to its requirements.

- The NEWMA recommended that this item be placed in the Handbook 130 Weights and Measures Law, Section 22, Prohibited Acts.
- The SWMA remained concerned that a “cash register” is not a weighing and measuring device. The SWMA believed this item needed additional work, and that affected industries must be contacted and involved before moving forward.

## 260 NIST HANDBOOK 133, CHECKING THE NET CONTENT OF PACKAGED GOODS

### 260-1 Edit MAV Tables 2-5, 2-6, 2-8, and 2-10

**SOURCE:** Central Weights and Measures Association (CWMA); NIST Weights and Measures Division.

**CURRENT PROPOSAL:** Amend MAV Tables 2-5, 2-6, 2-8, and 2-10 in Handbook 130 so that the metric values are more closely aligned with the corresponding inch-pound unit values. The new proposed tables can be found in Appendix B.

**BACKGROUND AND JUSTIFICATION:** The inch-pound units and metric units in parts of tables 2-5, 2-6, 2-8, and 2-10 do not match. This creates instances where it is unclear what MAV applies to a given package. All Handbook 133 documents ought to be mathematically correct on issues of weight and mass.

Ken Butcher, NIST, provided some additional background information: These tables were developed in the 1970’s with the inch-pound units as the original values. The metric counterparts were subsequently calculated based on what was then believed to be “reasonable” package sizes. Over the course of the ensuing 30 years, the “reasonable” package sizes envisioned in the 1970’s never developed in the marketplace. Instead products are sold in a wide variety of sizes, which makes the 1970’s metric conversions in this chart inaccurate and obsolete.

**HISTORY OF ITEM:** This is a new item. First introduced at the 2003 CWMA Meeting, the CWMA recommended adoption of this item. The WWMA voted to grant NIST editorial privileges to make the necessary changes. The SWMA recommended that this item remain Informational, and that NIST be granted editorial privileges to make the appropriate corrections.

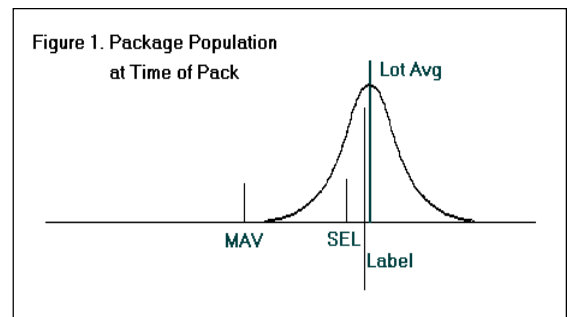
### 260-2 Amend § 1.2, Package Requirements

**SOURCE:** Northeastern Weights and Measures Association (NEWMA)

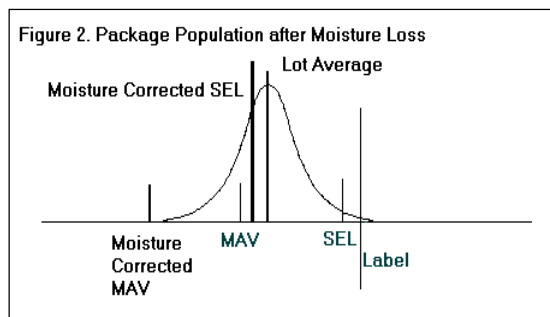
**CURRENT PROPOSAL:** Amend the discussion section “Why do we allow for moisture loss or gain?” in Handbook 133, Section 1.2, Package Requirements (page 4) as follows:

#### Why do we allow for moisture loss or gain?

Some packaged products may lose or gain moisture and, therefore, lose or gain weight or volume after packaging. The amount of lost moisture depends upon the nature of the product, the packaging material, the length of time it is in distribution, environmental conditions, and other factors. Moisture loss may occur even when manufacturers follow good distribution practices. Loss of weight “due to exposure” may include solvent evaporation, not just loss of water. **Note that allowances for loss or gain of moisture only apply to packages of commodities where the moisture has no value to the consumer (See Jones vs Rath).**



For loss or gain of moisture, **you** apply the moisture allowances to the maximum allowable variations permitted for individual packages and to the average net quantity of contents before determining the conformance of a lot. **You may apply the allowance before measuring the package errors or after. When applying the allowance before the measurements, you essentially correct each package back to theoretical weight at time of pack, see Figure 1 at right. When applying the allowance after measuring the package errors, you correct the MAV and SEL to recognize the moisture loss as in Figure 2 at right. You can find specific directions for applying the allowances in tests in Section 2.3.**



This handbook provides “moisture allowances” for some meat and poultry products, flour, and dry pet food (see “Moisture Allowances” in Chapter 2). These allowances are based on the premise that when the average net weight of a sample is found to be less than the labeled weight, but not by an amount that exceeds the allowable limit, either the lot is declared to be within the moisture allowance or more information must be collected before deciding lot compliance or non compliance.

**BACKGROUND AND JUSTIFICATION:** In the fall of 2003, NEWMA provided the following written justification, which applies to both this item and the next item (260-3: Amend § 2.3 Basic Test Procedure):

The issues involved are complex and highly interrelated. This made it difficult for many to understand this item as originally proposed. The specific issues are identified below with some justification for the changes that were proposed to the Handbook.

- (1) What products are covered by the requirement to recognize loss/gain of moisture in distribution? The reference to the Rath vs. Jones case in Chapter one was a stab at an answer. NEWMA believes this may be premature and should be removed from the item for the short term to help it move. However, this is a battle that will have to be fought somewhere in the future, since regulators get claims of moisture loss from diverse packers as an excuse for packages that fail to have labeled net weight. The claims have ranged from windshield washer fluid in plastic jugs to canned tomato sauce. Where can the official turn to get an answer if not to this Handbook? If the committee believes there is a better way, NEWMA would like some guidance.
- (2) When do you apply the moisture allowance in the test process? Within the Handbook itself, the method is either not clear or some of the text is wrong. In Chapter 1 the text indicates that you must apply the allowance before the test (i.e., adjusting by using box 13a and thus lowering the NGW in box 14). In Chapter 2, the text appears otherwise. You are directed to add the moisture allowance to the MAV on Page 18. You are further directed to compare the difference between sample average and SEL to the moisture allowance on Page 19. Both of these instructions can only make sense if the value in box 13a was not included in the nominal gross weight calculation in box 14. At the very least these sections fail to provide clear guidance. The proposal attempts to clarify that you can make the correction either before or after and attempts to provide procedures to do that in each case. Before works great for products with established moisture allowances, but it is not possible to apply a correction before the test when dealing with other products. For these other products, you must do additional investigation to determine the magnitude of the loss and you must apply it after the field official has completed the testing. It may also be beneficial to do the adjustment afterwards for products with established moisture loss allowances. Since both before and after methods can provide equivalent results, they should both be recognized in the Handbook. The proposal does this in changes for both Chapters 1 and 2.
- (3) Shouldn't all the established moisture allowances be listed in one place, rather than being listed as separate items? The proposal changes the question from one of how you apply the allowance for a specific product to one of what products have established allowances. This brings these all together in one section that is easily found by an inspector.
- (4) How do you establish moisture allowances for products not in the list in 3 above? The Handbook provides no guidance whatsoever! In the last line at the bottom of page 17, the text directs the inspector to follow steps if the product is listed, but says nothing about products not listed. This is a huge omission that has many officials

wondering what to do? The result is that some packers bluff by playing the moisture loss card even when not entitled to a loss (e.g., canned goods) and many officials back away from these products for lack of direction. The proposal included the provision for comparing time of pack data with actual field data for moisture content that was in the 3<sup>rd</sup> Edition. It also would permit using data from a scientific study provided by the manufacturer in support of any claim of moisture loss.

- (5) Why do we have a different method of evaluating the test results for products with moisture loss than for other products? The basic procedure for evaluating test results calls for evaluating the individual packages against the MAV, and evaluating the sample average against the SEL. On page 19, that procedure is not longer used and instead you have to look at a difference between the sample average and the SEL and not compare it to the moisture allowance. Recently we changed the method of calculating the  $R_c$  for tare variability to avoid having different methods for different types of packages. Consistency helps inspectors apply the standard uniformly. NEWMA believes that we should always compare sample average to the SEL and this can be accomplished easily by adjusting the SEL rather than looking at differences. Thus we would follow the same process in evaluating the results in all cases. The only difference is in how we arrive at the SEL and MAV when applying the moisture loss allowance after the test. If you use box 13a before the test, this is done automatically. If you follow the proposed procedure after the test, you calculate a moisture-corrected MAV and a moisture-corrected SEL and simply reevaluate the original test data. While you might get the same result using the procedure on page 19, it uses a different evaluation process and is difficult to understand particularly in how box 13a is or is not used in the calculation of NGW.

The issues of moisture loss is complex and many components have to work together for a regulatory official to properly evaluate compliance of an inspection lot. The proposed changes affect five interrelated components of the issue. Officials in NEWMA believe that the issues must be tackled as a whole and not piecemeal because the components are so dependent on each other. We hope that these explanations provide sufficient background to help the Committee, industry and W&M officials understand the need for action and how the need is addressed in the proposal.

**HISTORY OF ITEM:** This item was originally submitted to the Committee by the NEWMA in 2002. At the 2003 January Interim Meeting the Committee heard testimony that this proposal was incomplete, and that additional language would be developed and presented on this item by NEWMA. As a result, the Committee decided to keep this item as Developmental. At the 2003 July Annual Meeting the Committee did not receive anything additional from NEWMA, so the item remained Developmental.

- The CWMA recommended that this item remain Developmental until more information is provided.
- The WWMA recommended that this item remain Developmental until the Northeast provides additional information. In addition, the WWMA disagrees with the last sentence (starting with the word ‘Note’) in the first paragraph of the NEWMA proposal, and recommends that this sentence not be added.
- The NEWMA continues to support improvements to NIST Handbook 133 to assist in proper application of moisture loss. NEWMA finds that there are omissions and confusing parts of the Handbook with regard to the important issue of moisture loss that should be cleaned up. The proposal submitted last year (in 2002) was split into two proposals and moved to developing status. This proposal is complex, but NEWMA encourages the Committee to reconsider and move it forward for vote. The inclusion of the Rath vs. Jones case in Chapter One may be premature, and should be removed from the item for the short term.
- The SWMA recommended that this item be returned to NEWMA for further development.

### 260-3 Amend § 2.3 Basic Test Procedure

**SOURCE:** Northeastern Weights and Measures Association (NEWMA)

**CURRENT PROPOSAL:** Delete the current “**Moisture Allowances**” discussion in Handbook 133, Section 2.3, Basic Test Procedure (pages 17 through 19), and replace it as follows:

#### **Moisture Allowances**

What products have an established moisture allowance?

Flour and dry pet food have a moisture allowance of 3 % of the labeled net weight. **Note:** Dry pet food means all extruded dog and cat foods and baked treat products packaged in kraft paper bags and/or cardboard boxes with a moisture content of 13 % or less at the time of pack.

**Meat and poultry products from a USDA-inspected plant are permitted no moisture allowance when tested under a Category A sampling plan with Used Dry Tare.**

Meat and poultry products from a USDA-inspected plant are permitted the following moisture allowances when tested under a Category A sampling plan with Wet Tare. Note: When there is free flowing liquid or absorbent packaging materials in contact with the product, all free liquid is part of the wet tare.

- For packages of fresh poultry that bear a USDA seal of inspection, the moisture allowance is 3 % of the labeled net weight. For net weight determinations only, fresh poultry is defined as poultry above 3 °C (26 °F). This is a product that yields or gives when pushed with the thumb.
- For packages of franks or hotdogs that bear an USDA seal of inspection, the moisture allowance is 2.5 % of the labeled net weight.
- For packages of bacon, fresh sausage, and luncheon meats that bear a USDA seal of inspection, there is no moisture allowance if there is no free-flowing liquid or absorbent materials in contact with the product and the package is cleaned of clinging material. Luncheon meats are any cooked sausage product, loaves, jellied products, cured products, and any sliced sandwich style meat. This does not include whole hams, briskets, roasts, turkeys, or chickens requiring further preparation to be made into ready-to-eat sliced product. When there is no free-flowing liquid inside the package and there are no absorbent materials in contact with the product, Wet Tare and Dried Used Tare are equivalent.

**These allowances are based on the premise that when the average net weight of a sample is found to be less than the labeled weight, but not by an amount that exceeds the allowable limit, either the lot is declared to be within the moisture allowance, or more information must be collected before deciding lot compliance or noncompliance.**

*How do you determine the allowance for products without an established moisture allowance?*

For any product subject to moisture loss/gain, you may determine the appropriate moisture loss allowance based on a valid, scientific study. You may not use arbitrarily chosen allowances for moisture loss/gain. Many packers have conducted studies that they can provide in support of any claim that the product lost/gained moisture. Any such study should have included a variety of environments that simulate the potential distribution chains that could be encountered. You may use the moisture loss limits found in such study as an allowance in a compliance test.

*What is the accepted method to determine the actual moisture loss for a lot?*

Where the packer measures and records the moisture content of product in each lot, you may request a copy of that data to be compared to the moisture content of the product offered for sale. You must select a random sample of the product offered for sale and have it tested for moisture content using a scientifically verified test procedure e.g. like those in the Official Methods of Analysis of the Association of Official Analytical Chemists (See Appendix D). The actual moisture loss is calculated as the moisture content (%) at time of pack minus moisture content (%) at time of sale. Use the difference obtained to calculate the actual moisture loss for the lot by multiplying it times the label quantity. Use this as the moisture allowance in the official test. In the case of moisture gain, this value will be a negative number.

### Calculations

*How do you apply a moisture allowance when conducting a test?*

Moisture allowances may be applied either prior to testing or after testing. These two methods are mathematically equivalent means of adjusting both the individual package errors and the sample average. It is common practice to apply the moisture correction prior to the test for those products with

**established moisture allowances like flour and dry pet food. In most other cases the correction is made after the test since moisture loss data will probably be obtained as part of the follow-up investigation after the initial test has failed.**

To compute the moisture loss allowance prior to testing, you correct the nominal gross weight in box 14 for moisture loss. Find the value of the allowance by multiplying the labeled quantity by the decimal percent value of the allowance. Enter this value in box 13a on the form. The nominal gross weight is found by adding the average tare (box 13) to the label quantity (box 1) and subtracting the moisture allowance (box 13a). Lot compliance is evaluated in the normal way using decision criteria in boxes 16 and 24 on the report form.

**Example:** Labeled quantity of a bag of flour is 2 lb and average tare is 0.04 lb (box 13)  
 Moisture Allowance is 3 % (0.03) of 2 lb = 0.06 lb  
*Nominal Gross Wt. = 2 lb + 0.04 lb – 0.06 lb = 1.98 lb record this value in box 14.*

**To compute the moisture loss allowance after testing, you correct only the MAV and SEL for moisture loss. Perform your initial test with no moisture allowance in box 13a. When moisture loss data becomes available, find the value of the allowance by multiplying the labeled quantity by the decimal percent value of the moisture loss or allowance. Lot compliance is evaluated using decision criteria in boxes 16 and 24 on the report form and the moisture corrected MAV and SEL respectively.**

**Example:** Labeled quantity of a package of rice is 2 lb, average tare is 0.04 lb (box 13), MAV (box 3) is 0.07 lb, and SEL (box 23) is 0.023 lb.

**Moisture content at time of pack was 13.4 % (packer data)**

Moisture content at time of sale is 10.6 % (lab data)

Moisture loss is (13.4 % to 10.6 %) = 2.8 %

Moisture allowance is 0.028 x 2 lb = 0.056 lb

Moisture Corrected MAV is 0.07 lb + 0.056 lb = 0.126 lb – Compare each package error measured in the initial test to this moisture corrected MAV using criteria in box 16.

Moisture Corrected SEL is 0.023 lb + 0.056 lb = 0.079 lb – Compare the sample average error in the initial test to this moisture corrected SEL using criteria in box 24.

**BACKGROUND AND JUSTIFICATION:** The products that have an established moisture allowance should be clearly stated. Currently the Handbook only poses the question “What is the moisture allowance for flour and dry pet food?” It does not state if any other products have a moisture allowance. In addition, the Handbook gives no guidance on what to do for products that do not have an established moisture allowance.

The “Calculations” section on page 18 is confusing and does not distinguish between applying a moisture allowance before or after testing. NEWMA believes that the current method of comparing the moisture allowance to the difference between the average error and the SEL is confusing. Simply adjusting the SEL with the moisture allowance is easier and more in line with how the MAV is corrected (see graphs on first page).

The current Handbook does not address commodities that are packed in sealed containers or how to treat commodities packed on the premises. NEWMA requests guidance from the L&R Committee on these two items.

In addition, the comments provided on the previous item (260-2: Amend § 1.2, Package Requirements) apply to this item as well.

**HISTORY OF ITEM:** This item was originally submitted to the Committee by the NEWMA in 2002. At the 2003 January Interim Meeting the Committee heard testimony that this proposal was incomplete, and that additional language would be developed and presented on this item by NEWMA. As a result, the Committee decided to keep this item as Developmental. At the 2003 July Annual Meeting the Committee did not receive anything additional from NEWMA, so the item remained Developmental.

- The CWMA recommended that this item remain Developmental until more information is provided.
- The WWMA recommended that this item remain Developmental until the Northeast provides additional information.

- The NEWMA continues to support improvements to NIST Handbook 133 to assist in proper application of moisture loss. NEWMA finds that there are omissions and confusing parts of the Handbook with regard to the important issue of moisture loss that should be cleaned up. The proposal submitted last year (in 2002) was split into two proposals and moved to developing status. This proposal is complex, but NEWMA encourages the Committee to reconsider and move it forward for vote.
- The SWMA recommended that this item be returned to NEWMA for further development.

## 260-4 Amend § 2.3 Basic Test Procedure, and Table 2-5

**SOURCE:** Central Weights and Measures Association (CWMA)

**CURRENT PROPOSAL:** Amend Handbook 133 § 2.3 as follows:

### *Where are Maximum Allowable Variations found?*

Find the MAV values for packages labeled by weight, volume, count, and measure in the tables listed below in Appendix A.

- |  |                |
|--|----------------|
| • Packages labeled by weight   | See Table 2-5  |
| • Packages labeled by volume liquid or dry   | See Table 2-6  |
| • Packages labeled by count  | See Table 2-7  |
| • Packages labeled by length (width), or area  | See Table 2-8  |
| • Packages labeled with <b>bearing a USDA seal of inspection - Meat and Poultry when labeled weight is provided by the USDA inspected facility</b>     | See Table 2-9  |
| • Textiles, polyethylene sheeting and film, mulch and soil labeled by volume, packaged firewood, and packages labeled by count with less than 50 items | See Table 2-10 |

Amend the Header of Table 2-5 as follows:

Table 2-5. Maximum Allowable Variations (MAVs) for Packages Labeled by Weight  
~~Do Not Use This Table for Meat and Poultry Products subject to USDA Regulations~~ **When Labeled Weight is Provided By USDA Inspected Facility** – Use Table 2-9  
For Polyethylene Sheeting and Film, see Table 2-10. Exceptions to the MAVs.

**BACKGROUND AND JUSTIFICATION:** When packages of meat and poultry are labeled with a net weight by a USDA inspected facility, they are subject to the MAVs found in Table 2-9 as established by the USDA. When packages from a USDA inspected facility are labeled with a net weight after they leave the inspected facility (i.e., the meat department at a supermarket), they are subject to the MAVs found in Table 2-5. This is because the weighing and labeling was not done under the supervision or inspection of the USDA.

The current guidance offered in Handbook 133 could be interpreted to mean that packages bearing a USDA seal of inspection are subject to Table 2-9 even if they were labeled with the weight after they left the facility. This proposal will provide clarification in Handbook 133 for uniform enforcement practices.

**HISTORY OF ITEM:** This is a new item. First introduced at the 2003 CWMA Interim Meeting, CWMA recommended adoption of this item.

## 260-5 Amend § 3.2 Gravimetric Test Procedure for Liquids

**SOURCE:** Central Weights and Measures Association (CWMA)

**CURRENT PROPOSAL:** Amend Handbook 133 § 3.2 Gravimetric Test Procedure for Liquids as follows:

3. ~~For milk, select a volumetric measure equal to the label declaration. For all other products, s~~Select a volumetric measure that is one size smaller than the label declaration. For example, if testing a 1 L bottle of juice or soft drink, select a 500mL volumetric measure.

**BACKGROUND AND JUSTIFICATION:** Currently, Handbook 133 can be interpreted to state that you must use a volumetric measure equal to the label declaration when testing milk. The previous 3<sup>rd</sup> Edition Section 4.7. allowed for the use of a smaller sized measure. Milk should not be excluded from all other products. This proposal would allow the jurisdictions to continue to use the same measure so they would not be required to purchase new equipment.

**HISTORY OF ITEM:** This is a new item. First introduced at the 2003 CWMA Interim Meeting, CWMA recommended adoption of this item.

## **260-6 Amend § 3.11 and MAV Table 2-10**

**SOURCE:** Western Weights and Measures Association (WWMA)

**CURRENT PROPOSAL:** Amend the application and header of Handbook 133 Table 2-10 as follows to allow the MAVs that apply to Mulch and Soil to also apply to similar products, such as Wood Shavings and Animal Bedding:

Table 2-10. Exceptions to the Maximum Allowable Variations for  
Textiles, Polyethylene Sheeting and Film, Mulch ~~and~~ Soil, and Other Similar Products Labeled by Volume,  
Packaged Firewood, and  
Packages Labeled by Count with Less than 50 Items

Amend Handbook 133 § 3.11 to read:

### **3.11. Mulch ~~and~~ Soil, and Other Similar Products Labeled by Volume**

**BACKGROUND AND JUSTIFICATION:** A manufacturer of wood fiber products feels that their wood shavings, labeled by volume, should receive the same MAVs as "Mulch and Soils." The product could conceivably be used in as many different applications as "Animal Bedding," "Insulation," "Mulch" (A Horticultural Above Ground Dressing), etc. The reasons for allowing expanded MAVs for Mulch and Soil also apply to other similar products. Item 250-10, which was adopted at the 83<sup>rd</sup> National Conference on Weights and Measures in 1998, and was entitled "Bark Mulch, and Other Organic Products – Maximum Allowable Variations" discussed the reasoning and the necessity for the expanded MAVs. This reasoning also applies to other similar products with irregular particle sizes and shapes, and that have poor measurement repeatability because of inherent product characteristics.

**HISTORY OF ITEM:** This is a new item. First introduced at the 2003 WWMA Meeting, WWMA recommended adoption of this item. The SWMA recommended that this item be withdrawn because there was insufficient data provided to justify further consideration.

## **270 OTHER ITEMS**

### **270-1 Enhanced Product – USDA/FSIS Meat and Poultry Products**

**SOURCE:** Central Weights and Measures Association (CWMA)

**CURRENT PROPOSAL:** The NCWM shall:

- (1) Establish a Working Group to study current market conditions for enhanced versus non-enhanced meat and poultry products, to determine the extent to which water and/or other added solutions are no longer retained in the product at the time of sale (i.e., are lost into the packaging material or are otherwise free-flowing) recognizing Federal regulations that are in place which govern labeling of such products; and

- (2) Direct the Working Group to make recommendations to the L&R Committee based on findings of the study concerning what is to be considered “reasonable moisture allowances” when conducting Handbook 133 inspections of enhanced meat and poultry products.

**BACKGROUND AND JUSTIFICATION:** Meat and poultry processors have been marketing fresh meat and poultry items to which water-based solutions of various compositions have been added, ostensibly with the claim that the solutions “enhance juiciness and/or flavor” and overall palatability. Wet tare testing in the State of Michigan has revealed that those solutions leach into the soaker pads and packaging material and are no longer contained in the product at the time of sale. Thus, they do not accomplish the stated purpose. This means that consumers are paying for water solutions: (1) at fresh meat and poultry prices, and (2) that are no longer part of the product. This causes economic harm to consumers and the marketplace.

In addition, fresh poultry has been processed for decades using a bath chilling method which causes the carcasses to uptake water to the extent that the USDA/FSIS has placed percentage limits on the amount of additional water the poultry is allowed to absorb (8 % whole/12 % cut up). Labeling on “enhanced products” that has been allowed by the USDA/FSIS ranges from “contains up to 33 % of a solution” to “up to 33 % of product weight is added ingredients.” This labeling appears to be ineffective at best, and misleading at worst.

Dry and/or dry-used tare testing of these products cannot:

- (1) detect the levels of solutions claimed on packaging.
- (2) detect to what extent the artificially added moisture has leached from the products and has been either absorbed in soaker pads, or remains free-flowing in the packaging material.
- (3) yield data with which to determine “reasonable variations” from the stated net weight.

Recent laboratory tests on fresh, “enhanced” poultry products sold in the State of Michigan have revealed moisture losses ranging from 2 to 6.5 ounces.

USDA estimates indicate that with respect to chilled poultry, in 1996 consumers paid for 1.5 billion pounds of retained water at a cost of nearly \$1 billion. (USDA/FSIS, Retained Water in Raw Meat and Poultry Products; Poultry Chilling Performance Standards, Docket #97-054P, September 8, 1998, p. 48974.) Poultry with a processed water uptake of up to 8 % (whole) or 12 % (cut up) of net weight is being sold “enhanced with up to a 15 % of a solution,” resulting in a product for which a consumer is paying for 23 % water.

The initial thrust of the USDA/FSIS proposed rulemaking was to accommodate legitimate water uptake claims on the basis of meeting food safety requirements. However, comments have been submitted that seriously challenge the poultry industry’s assertion that batch chillers are the preferred, best method to chill carcasses to enhance food safety. On the contrary, according to several scientific submissions to the proposed rulemakers, bath chillers may actually perpetuate and facilitate the spread of pathogens. The USDA/FSIS also found that several poultry packers are “targeting” the upper water retention limits, regardless of any food safety concerns.

Current labeling of products for added solutions is extremely vague and potentially misleading to consumers. Consumers’ economic interests are not being protected without changes to the inspection system requirements. The consuming public has not been fully informed of the economic impact of paying meat and poultry prices for water. This will eventually surface in the media, however, and weights and measures officials must be able to address the “reasonableness” of this practice.

**HISTORY OF ITEM:** This item was originally brought to the Committee by the CWMA in 2000. At that time the CWMA was recommending that the Committee:

- A. In concert with the NCWM Administration and Public Affairs Committee, provide an opportunity for a Technical Demonstration at the NCWM 2001 Interim Meeting in Phoenix, Arizona, on the economic impact on U.S. consumers due to moisture loss from fresh meat and poultry products that have been “enhanced” through the addition of “solutions” (water, sodium phosphate, etc.) or have otherwise gained moisture during processing (i.e., fresh poultry). It is requested that the Technical Demonstration, to be presented on behalf of the CWMA by the State of Michigan, be conducted during a joint session of the NCWM Standing Committees due to the nationwide scope and economic impact of this issue; and

- B. Establish a Working Group to begin a study, on a nationwide basis, if possible, to determine the extent to which consumers in the U.S. are paying for water and/or other added solutions that are no longer retained in the product at the time of sale (i.e., are lost into the packing material or are otherwise free-flowing); and
- C. Direct that the Working Group recommend a testing method that may be utilized by weights and measures jurisdictions to determine the amount and/or reasonableness of the moisture loss documented and what “gray area,” if any, should be applied to these products; and
- D. Direct the Working Group to examine labeling of “enhanced” fresh meat and poultry (including fresh poultry that has gained weight due to water absorption as a result of processing) to determine if current labeling is sufficiently descriptive and uniform to allow U.S. consumers to make informed purchasing decisions and to recommend changes if the labeling is found to be non-uniform and/or otherwise deficient.

The CWMA requested that this item be given a high priority by the NCWM, and that the goal be for the Working Group to report on its findings during the 2001 NCWM Annual Meeting Technical Session.

In 2001: At the January Interim Meeting the Committee commented that it is difficult for weights and measures officials to conduct net content inspection in accordance with NIST Handbook 133 procedures without defined reasonable moisture allowances. The Committee therefore recommended that the NCWM establish a Working Group to study current market conditions and recommend moisture allowances (the current proposal). At the July Annual Meeting this item was adopted by the NCWM.

- The CWMA formed a small committee to develop recommendations for the formation of the working group with the goal of providing those recommendations to the NCWM Chairman and the NCWM Laws and Regulations Committee Chairman in advance of the 2002 NCWM Interim Meeting. Henry Oppermann, Chief, NIST Office of Weights and Measures, provided copies of a previous NCWM Study Group protocol to assist in the development of this item.
- The WWMA recommended that the Enhanced Product Working Group propose a plan and scope of action for consideration by the NCWM. The WWMA encouraged the working group to invite participants from USDA, industry, and other interested parties.
- The SWMA echoed the WWMA’s recommendation that USDA, industry, and other interested parties be invited to participate in the working group.

In 2002: The Committee voted to maintain this item on the agenda as Informational pending the proposed formation of an Enhanced Product Working Group by the NCWM Board of Directors.

- The CWMA reported that data collected by their committee had been forwarded to Kurt Floren, San Diego County, California, who they had been told had been appointed to lead this effort.
- The WWMA recommended that this item remain Informational to give the NCWM Board of Directors time to determine the appropriate direction regarding this item.

In 2003: The Committee voted to maintain this item on the agenda as Informational pending the proposed formation of an Enhanced Product Working Group by the NCWM Board of Directors.

- The CWMA supports keeping this item as Informational until the NCWM Board of Directors appoints the Working Group.
- The WWMA supports keeping this item as Informational until the NCWM Board of Directors appoints the Working Group. The WWMA heard from Dennis Ehrhart, NCWM Chairman, that he would be appointing a Work Group in the near future.
- The SWMA heard comments that this really falls under USDA jurisdiction, and current USDA regulations permit the sale of these “enhanced products.” With the limited resources available to the NCWM, the SWMA recommends that a Working Group not be formed, and the item be withdrawn.

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Dennis Johannes, California, Chairman  
Joe Gomez, New Mexico  
Edwin Price, Texas  
James Cassidy, Cambridge, Massachusetts  
Vicky Dempsey, Montgomery County, Ohio

Vince Orr, ConAgra Foods, Associate Member Representative  
Brian Lemon, Canada, Technical Advisor  
Doug Hutchinson, Canada, Technical Advisor  
Tom Coleman, NIST, Technical Advisor  
Kathryn Dresser, NIST, Technical Advisor

### **Committee on Laws and Regulations**